

TITLE 327 WATER POLLUTION CONTROL BOARD

LSA Document #99-112(F)

DIGEST

Amends the definition of “public water system” each time it appears in 327 IAC 8, to be consistent with the recently revised federal Safe Drinking Water Act definition. Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: July 1, 1999, Indiana Register (22 IR 3239).

Second Notice of Comment Period and Notice of First Hearing: September 1, 1999, Indiana Register (22 IR 3998).

Date of First Hearing: October 13, 1999.

Proposed Rules and Notice of Second Hearing: December 1, 1999, Indiana Register (23 IR 602).

Date of Second Hearing: December 8, 1999.

Finally Adopted: December 8, 1999.

327 IAC 8-1-3

327 IAC 8-3.5-1

327 IAC 8-2-1

327 IAC 8-4.1-1

327 IAC 8-3-1

327 IAC 8-10-1

SECTION 1. 327 IAC 8-1-3, AS ADDED AT 22 IR 2492, SECTION 3, IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-1-3 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. In addition to the definitions contained in IC 13-11-2, the following definitions apply throughout this rule:

(1) “Direct additives” means additives that are used in public water systems for the treatment of raw water. Direct additives are also used to protect drinking water during storage and distribution.

Examples of direct additives include the following:

- (A) Agents used for coagulation and flocculation.
- (B) Corrosion and scale control.
- (C) Softening.
- (D) Sequestering.
- (E) Precipitation.

- (F) pH adjustment.
- (G) Disinfection and oxidation.
- (H) Miscellaneous treatment applications.
- (I) Miscellaneous water supply products.
- (2) “Entry point of the distribution system” means one (1) of the following points:
 - (A) In public water systems which utilize water treatment facilities, the point at which the drinking water has left the treatment facilities and has entered the distribution system.
 - (B) In public water systems which do not utilize water treatment facilities, the point at which the drinking water has left the supply facilities and has entered the distribution system.
- (3) “Indirect additives” means additives that are materials or equipment that come in contact with drinking water or come in contact with drinking water direct additives. Examples of indirect additives include the following:
 - (A) Pipes.
 - (B) Valves and related products.
 - (C) Barrier materials.
 - (D) Joining and sealing materials.
 - (E) Protective materials and related products.
 - (F) Mechanical devices used in treatment, transmission, and distribution systems.
- (4) “Operator” means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.
- (5) “Public water system” means a public water supply for the provision to the public of ~~pip~~**ed** water for human consumption **through pipes or other constructed conveyances**, if such system has at least fifteen (15) service connections or regularly serves ~~an average of~~ at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, ~~including the operator or administrator of such system~~, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(Water Pollution Control Board; 327 IAC 8-1-3; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2492)

SECTION 2. 327 IAC 8-2-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-2-1 Definitions

Authority: IC 13-13-5; IC 13-14-8-7; IC 13-14-9; IC 13-18-3; IC 13-18-16

Affected: IC 13-11-2; IC 13-18

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

- (1) “Act” means the Safe Drinking Water Act (42 U.S.C. 300f et seq.).
- (2) “Action level” means the concentration of lead or copper in water specified in section 36(c) of this rule which determines, in some cases, the treatment requirements contained in sections 36

through 47 of this rule, that a water system is required to complete.

(3) “Adjustment program” means the addition of fluoride to drinking water by a public water system for the prevention of dental cavities.

(4) “Administrator” means the administrator of the U.S. EPA.

(5) “Best available technology (BAT)” means best technology, treatment techniques, or other means which the commissioner finds are available, after examination for efficacy under field conditions, and not solely under laboratory conditions, and after taking cost into consideration. For the purpose of setting maximum contaminant levels for synthetic organic chemicals, any BAT must be at least as effective as granular activated carbon.

(6) “Coagulation” means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.

(7) “Commissioner” means the commissioner of the Indiana department of environmental management or the designated agent of the commissioner.

(8) “Community water system” means a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.

(9) “Compliance cycle” means the nine (9) year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three (3) three-year compliance periods. The first calendar year cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.

(10) “Compliance period” means a three (3) year calendar year period within a compliance cycle. Each compliance cycle has three (3) three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001.

(11) “Confluent growth” means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

(12) “Contaminant” means any micro-organisms, chemicals, waste, physical substance, radiological substance, or any wastewater introduced or found in the drinking water.

(13) “Conventional filtration treatment” means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

(14) “Corrosion inhibitor” means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

(15) “CT” or “CT_{calc}” is the product of residual disinfectant concentration (C) in milligrams per liter determined before or at the first customer and the corresponding disinfectant contact time (T) in minutes, such as $C \times T$. If a public water system applies disinfectants at more than one (1) point prior to the first customer, it must determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or total inactivation ratio. In determining the total inactivation ratio, the public water system must determine the residual disinfectant

concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point. $CT_{99.9}$ is the CT value required for ninety-nine and nine-tenths percent (99.9%)(3-log) inactivation of *Giardia lamblia* cysts. $CT_{99.9}$ for a variety of disinfectants and conditions appears in Tables 1.1-1.6, 2.1, and 3.1 of paragraph 141.74(b)(3).¹

$$\frac{CT_{calc}}{CT_{99.9}}$$

$$CT_{99.9}$$

is the inactivation ratio. The sum of the inactivation ratios or total inactivation ratio shown as:

$$3 \frac{CT_{calc}}{(CT_{99.9})}$$

$$(CT_{99.9})$$

is calculated by adding together the inactivation ratio for each disinfection sequence. A total inactivation ratio equal to or greater than one (1.0) is assumed to provide a 3-log inactivation of *Giardia lamblia* cysts.

(16) “Diatomaceous earth filtration” means a process resulting in substantial particulate removal in which:

(A) a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum); and

(B) while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

(17) “Direct filtration” means a series of processes, including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

(18) “Disinfectant” means any oxidant, including, but not limited to, chlorine, chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process that is intended to kill or inactivate pathogenic micro-organisms.

(19) “Disinfectant contact time” (T in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration (C) is measured. Where only one (1) C is measured, T is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at where C is measured. Where more than one (1) C is measured, T is:

(A) for the first measurement of C, the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first C is measured; and

(B) for subsequent measurements of C, the time in minutes that it takes for water to move from the previous C measurement point to the C measurement point for which the particular T is being calculated.

Disinfectant contact time in pipelines must be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs must be determined by tracer studies or an equivalent demonstration.

- (20) “Disinfection” means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.
- (21) “Domestic or other nondistribution system plumbing problem” means a coliform contamination problem in a public water system with more than one (1) service connection that is limited to the specific service connection from which the coliform-positive sample was taken.
- (22) “Dose equivalent” means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRUM).
- (23) “Effective corrosion inhibitor residual” means a concentration sufficient to form a passivating film on the interior walls of a pipe for the purpose of sections 36 through 47 of this rule only.
- (24) “Filtration” means a process for removing particulate matter from water by passage through porous media.
- (25) “First draw sample” means a one (1) liter sample of tap water collected in accordance with section 37 of this rule, that has been standing in the plumbing pipes at least six (6) hours and is collected without flushing the tap.
- (26) “Flocculation” means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.
- (27) “Gross alpha particle activity” means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.
- (28) “Gross beta particle activity” means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.
- (29) “Ground water under the direct influence of surface water” means any water beneath the surface of the ground with:
- (A) significant occurrence of insects or other macro-organisms, algae, or large-diameter pathogens such as *Giardia lamblia*; or
 - (B) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions.
- Direct influence must be determined for individual sources in accordance with criteria established by the commissioner. The commissioner’s determination of direct influence may be based on site-specific measurements of water quality and/or documentation of well construction characteristics and geology with field evaluation.
- (30) “Halogen” means one (1) of the chemical elements chlorine, bromine, or iodine.
- (31) “Initial compliance period” means January 1993 to December 1995, for the contaminants listed in sections 4 (other than arsenic, barium, cadmium, fluoride, lead, mercury, selenium, and silver), 5, and 5.4(a) (other than benzene, vinyl chloride, carbon tetrachloride, 1,2-dichloroethane, trichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, and para-dichlorobenzene) of this rule.
- (32) “Large water system” means a water system that serves more than fifty thousand (50,000) people for the purpose of sections 36 through 47 of this rule only.
- (33) “Lead service line” means a service line made of lead which connects the water main to the

building inlet and any lead pigtail, gooseneck, or other fitting which is connected to such lead line.

(34) “Legionella” means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

(35) “Manmade beta particle and photon emitters” means all radionuclides emitting beta particle and/or photons listed in “Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure”, NBS Handbook 69, as amended August 1973, U.S. Department of Commerce, except the daughter products of thorium-232, uranium-235, and uranium-238.

(36) “Maximum contaminant level (MCL)” means the maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system, except in the case of turbidity where the maximum permissible level is measured at the point of entry to the distribution system. Contaminants added to the water under circumstances controlled by the user, except those resulting from corrosion of piping and plumbing caused by water quality, are excluded from this definition.

(37) “Maximum contaminant level goal (MCLG)” means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and which includes an adequate margin of safety. Maximum contaminant level goals are nonenforceable health goals.

(38) “Maximum total trihalomethane potential (MTP)” means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after seven (7) days at a temperature of twenty-five (25) degrees Celsius (25°C) or above.

(39) “Medium size water system” means a water system that serves greater than three thousand three hundred (3,300) and less than or equal to fifty thousand (50,000) persons for the purpose of sections 36 through 47 of this rule only.

(40) “Near the first service connection” means at one (1) of the twenty percent (20%) of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.

(41) “Noncommunity water system” means a public water system which has at least fifteen (15) service connections used by nonresidents or which regularly serves twenty-five (25) or more nonresident individuals daily for at least sixty (60) days per year.

(42) “Nontransient noncommunity water system (NTNCWS)” means a public water system that is not a community water system which regularly serves the same twenty-five (25) or more persons at least six (6) months per year.

(43) “Optimal corrosion control treatment” means the corrosion control treatment that minimizes the lead and copper concentrations at users’ taps while ensuring that the treatment does not cause the water system to violate any national primary drinking water regulations for the purpose of sections 36 through 47 of this rule only.

(44) “Performance evaluation sample” means a reference sample provided to a laboratory for the purpose of demonstrating that the laboratory can successfully analyze the sample within limits of performance specified by the administrator. The true value of the concentration of the reference material is unknown to the laboratory at the time of the analysis.

- (45) “Pecocuri (pCi)” means the quantity of radioactive material producing two and twenty-two hundredths (2.22) nuclear transformations per minute.
- (46) “Point of disinfectant application” is the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water run-off.
- (47) “Point-of-entry treatment device (POE)” is a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in drinking water distributed throughout the house or building.
- (48) “Point-of-use treatment device (POU)” is a treatment device to a single tap used for the purpose of reducing contaminants in drinking water at that one (1) tap.
- (49) “Public water system” means a public water supply for the provision to the public of ~~water~~ **water for human consumption through pipes or other constructed conveyances**, if such system has at least fifteen (15) service connections or regularly serves ~~an average of~~ at least twenty-five (25) individuals daily at least sixty (60) days out of the year. “Public water system” includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, ~~including the operator or administrator of such system~~, and is used primarily in connection with such system and any collection or pretreatment storage facilities not under such control ~~which~~ **that** are used primarily in connection with such system. A public water system is either a community water system or a noncommunity water system, as defined in subdivisions (8) and (41).
- (50) “Rem” means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A millirem (mrem) is ~~one~~ one-thousandth (1/1,000) of a rem.
- (51) “Repeat compliance period” means any subsequent compliance period after the initial compliance period.
- (52) “Residual disinfectant concentration” (C in CT calculations) means the concentration of disinfectant measured in milligrams per liter in a representative sample of water.
- (53) “Sanitary survey” means an on-site inspection of the water source, facilities, equipment, construction, and operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, construction, and operation and maintenance for producing and distributing safe drinking water.
- (54) “Sedimentation” means a process for removal of solids before filtration by gravity or separation.
- (55) “Service line sample” means a one (1) liter sample of water collected in accordance with section 37(b)(3) of this rule that has been standing at least six (6) hours in a service line.
- (56) “Single family structure” means a building constructed as a single family residence that is currently being used as either a residence or a place of business for the purpose of sections 36 through 47 of this rule only.
- (57) “Slow sand filtration” means a process involving passage of raw water through a bed of sand at low velocity (generally less than four-tenths (0.4) meter per hour or forty-five (45) to one hundred fifty (150) gallons per day per square foot) resulting in substantial particulate removal by physical and biological mechanisms.
- (58) “Small water system” means a water system that serves three thousand three hundred (3,300) persons or fewer for the purpose of sections 36 through 47 of this rule only.

- (59) “Standard sample” means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.
- (60) “Supplier of water” means any person who owns and/or operates a public water system.
- (61) “Surface water” means all water occurring on the surface of the ground, including water in a stream, natural and artificial lakes, ponds, swales, marshes, and diffused surface water.
- (62) “System with a single service connection” means a public water system which supplies drinking water to consumers via a single service line.
- (63) “Too numerous to count” means that the total number of bacterial colonies exceeds two hundred (200) on a forty-seven (47) millimeter diameter membrane filter used for coliform detection.
- (64) “Total trihalomethanes (TTHM)” means the sum of the concentration in milligrams per liter of the trihalomethane compounds:
- (A) trichloromethane (chloroform);
 - (B) dibromochloromethane;
 - (C) bromodichloromethane; and
 - (D) tribromomethane (bromoform);
- rounded to two (2) significant figures.
- (65) “Transient noncommunity water system (TWS)” means a noncommunity water system that does not regularly serve at least twenty-five (25) of the same persons over six (6) months per year.
- (66) “Trihalomethane (THM)” means one (1) of the family of organic compounds, named as derivatives of methane, wherein three (3) of the four (4) hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.
- (67) “U.S. EPA” or “EPA” means the United States Environmental Protection Agency.
- (68) “Virus” means a virus of fecal origin which is infectious to humans by waterborne transmission.
- (69) “Waterborne disease outbreak” means the significant occurrence of acute infectious illness epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment as determined by the commissioner.

¹Federal Register, Part II, 40 CFR 141, June 29, 1989, Volume 54, Number 124, pages 27532 through 27534.

(Water Pollution Control Board; 327 IAC 8-2-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 705; filed Dec 28, 1990, 5:10 p.m.: 14 IR 1003; errata filed Jan 9, 1991, 2:30 p.m.: 14 IR 1070; errata filed Aug 6, 1991, 3:45 p.m.: 14 IR 2258; filed Apr 12, 1993, 11:00 a.m.: 16 IR 2151; filed Aug 24, 1994, 8:15 a.m.: 18 IR 19; errata filed Oct 11, 1994, 2:45 p.m.: 18 IR 531; filed Oct 24, 1997, 4:30 p.m.: 21 IR 932)

SECTION 3. 327 IAC 8-3-1, AS AMENDED AT 22 IR 2493, SECTION 5, IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 25-31

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

- (1) "Connection ban" means an order imposed by the commissioner in accordance with section 4.2 of this rule.
- (2) "Distribution system" means the piping, storage structures, pumps, and controls used to deliver water to the public.
- (3) "Early warning order" means an order imposed by the commissioner in accordance with section 4.2 of this rule.
- (4) "Experimental permit" means a construction permit issued for an installation, treatment process, or technique for which extensive experience and records of use have not been accumulated to meet the Safe Drinking Water Act requirements.
- (5) "Normal operating pressure" means the water main pressure maintained regardless of public service load in the absence of extenuating circumstances.
- (6) "Operator" means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.
- (7) "Peak operating flowrate" means the flowrate equal to maximum achievable capacity of the public water system.
- (8) "Professional engineer" means a person who is registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.
- (9) "Public water system" means a public water supply for the provision to the public of ~~water~~ **water for human consumption through pipes or other constructed conveyances**, if such system has at least fifteen (15) service connections or regularly serves ~~an average of~~ at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, ~~including the operator or administrator of such system~~, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control ~~which that~~ are used primarily in connection with such system.
- (10) "Satisfactory quality" means the physical, chemical, and bacteriological quality of drinking water meeting the requirements set forth in this article.
- (11) "Two (2) year average peak" means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system's monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system's monthly report of operations on record with the department.
- (12) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

(Water Pollution Control Board; 327 IAC 8-3-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 709; filed Oct 22, 1991, 5:00 p.m.: 15 IR 223; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2493)

SECTION 4. 327 IAC 8-3.5-1, AS ADDED AT 22 IR 2522, SECTION 1, IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3.5-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-2; IC 13-18-1; IC 13-18-3; IC 13-18-4; IC 13-18-16-8

Affected: IC 13-11-2; IC 13-15-2; IC 13-18

Sec. 1. In addition to the definitions contained in 327 IAC 8-3-1, the following definitions apply throughout this rule:

- (1) "Alternative technical standard" means alternative technical standards as described in 327 IAC 8-3.2-20.
- (2) "Average daily customer demand" means the average daily customer demand as determined in accordance with 327 IAC 8-3.3-2.
- (3) "Entry point of the distribution system" means one (1) of the following points:
 - (A) For public water systems that utilize water treatment facilities, the point at which the drinking water has left the treatment facilities and has entered the distribution system.
 - (B) For public water systems that do not utilize water treatment facilities, the point at which the drinking water has left the supply facilities and has entered the distribution system.
- (4) "General construction permit ban" means a decision issued in conformance with section 8 of this rule.
- (5) "Notice of intent letter" or "NOI" means a written notification indicating a responsible person has elected to comply with the terms of this general construction permit rule in lieu of applying for an individual construction permit.
- (6) "Peaking factor" means the peak daily customer demand factor as determined in accordance with 327 IAC 8-3.3-2.
- (7) "Public water system" means a public water supply for the provision to the public of ~~water~~ **water for human consumption through pipes or other constructed conveyances**, if such system has at least fifteen (15) service connections or regularly serves ~~an average of~~ at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, ~~including the operator or administrator of such system~~, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control ~~which that~~ are used primarily in connection with such system.
- (8) "Public water system's daily capacity" means the public water system's daily capacity as determined in accordance with 327 IAC 8-3.3-3.
- (9) "Responsible person" means a person as described by section 6 of this rule.
- (10) "Two (2) year average peak" means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system's monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public

water system's monthly report of operations on record with the department.

(11) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

(12) "Transmission main" means a pipe described by any of the following:

(A) That transports water from a surface water intake to a surface water treatment plant.

(B) That transports water from a groundwater intake (well) to a water treatment plant (if present).

(C) That transports finished water from the treatment plant (if present) to the entry point of the distribution system.

(D) That is installed for the purpose of interconnecting separate public water systems.

(Water Pollution Control Board; 327 IAC 8-3.5-1; filed Mar 31, 1999, 10:20 a.m.: 22 IR 2522; errata filed Aug 17, 1999, 3:15 p.m.: 23 IR 25)

SECTION 5. 327 IAC 8-4.1-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-4.1-1 Definitions

Authority: IC 13-14-8; IC 13-18-3; IC 13-18-17-6

Affected: IC 13-11-2-43; IC 13-13-2; IC 13-18; IC 15-3-3.5; IC 15-3-3.6; IC 25-17.6-1; IC 25-39-4

Sec. 1. In addition to the definition in IC 13-11-2-43, the following definitions apply throughout this rule:

(1) "Aquifer" means an underground geological formation that has the ability to receive, store, and transmit water in amounts sufficient for the satisfaction of any beneficial use.

(2) "Best management practices" means schedules of activities, prohibitions of practice, treatment requirements, operation and maintenance procedures, use of containment facilities, and other management practices to prevent or reduce the pollution of waters of the state.

(3) "Calibration" means the process of refining the model representation of the hydrogeologic framework, hydraulic properties, and boundary conditions to achieve a desired degree of correspondence between the model simulation and observations of the ground water flow system.

(4) "Certified professional geologist" means a professional geologist certified by the state of Indiana under ~~IC 25-17.5-1~~. **IC 25-17.6-1.**

(5) "Community public water supply system" or "CPWSS" means a public water supply system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.

(6) "Conceptual model" means a description of the hydrogeologic system that represents the movement of ground water, for example:

(A) geologic and hydrologic framework;

(B) media type;

(C) physical processes;

(D) hydraulic properties; and

(E) water budget.

- (7) “Confined aquifer” means an aquifer in which ground water is confined under pressure that is significantly greater than atmospheric pressure.
- (8) “Critical water users” means water users whose immediate health or welfare would be affected in an adverse manner if water use is denied.
- (9) “Customers” means number of persons served by the public water supply system.
- (10) “Delineation” means a process used to define boundaries of the wellhead protection area.
- (11) “Department” means the department of environmental management created under IC 13-13-2.
- (12) “Emergency condition” means a condition related to ground water contamination which threatens to disrupt water supply service from a community public water supply system wellfield.
- (13) “Hydrogeology” means the study of the geology of ground water, with particular emphasis on the chemistry and movement of water.
- (14) “Hydrostratigraphic unit” means a grouping of geologic units of similar hydrogeologic properties, for example, aquifers and confining units.
- (15) “Large community public water supply system” means a public water supply system serving greater than fifty thousand (50,000) customers.
- (16) “Medium community public water supply system” means a public water supply system serving from three thousand three hundred one (3,301) up to and including fifty thousand (50,000) customers.
- (17) “Model” means an investigative technique using a mathematical or physical representation of a system or theory that accounts for all or some of its known properties.
- (18) “Pesticide review board” means the Indiana pesticide review board created by IC 15-3-3.5 to collect, analyze, and interpret information on matters relating to the use of pesticides.
- (19) “Potential source of contamination” means a facility, site, practice, or activity that possesses the ability to contaminate ground water.
- (20) “Public water supply system” or “PWSS” means a public water supply for the provision to the public of ~~pipe~~ water for human consumption **through pipes or other constructed conveyances**, if such a system has at least fifteen (15) service connections or regularly serves an ~~average~~ of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. **The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.**
- (21) “Qualified ground water scientist” means an individual who possesses a bachelor’s degree or higher in the physical sciences, for example, geology or engineering, with a sufficient level of experience to make sound professional judgments regarding site characterization and hydrogeology. This level of experience may be demonstrated by certification or registration as a professional geologist or engineer, either of whom shall have education or professional experience in hydrogeology or ground water hydrology.
- (22) “Sanitary setback” means an area established around a CPWSS production well to protect

ground water from direct contamination.

(23) “Small community public water supply system” means a public water supply system serving up to and including three thousand three hundred (3,300) customers.

(24) “State chemist” means the office of the Indiana state chemist authorized by IC 15-3-3.5 and IC 15-3-3.6 to administer the use, application, storage, mixing, loading, transportation, and disposal of pesticides in Indiana under those chapters.

(25) “Time of travel” or “TOT” means the calculated length of time a particle of water takes to reach a CPWSS production well from a certain point.

(26) “Time of travel (TOT) threshold” means a threshold determined by the community or CPWSS to suit the hydrogeologic conditions and needs of the community; however, a minimum five (5) year TOT for modeled wellhead protection areas and three thousand (3,000) feet for fixed radius wellhead protection area is allowed.

(27) “Wellhead protection area” or “WHPA” means the surface and subsurface area, delineated by fixed radius, hydrogeological mapping, analytical, semianalytical, or numerical flow/solute transport methods, which contributes water to a CPWSS production well or wellfield and through which contaminants are likely to move through and reach the well within a specified period.

(28) “Wellhead protection program” or “WHPP” means a program to sustain drinking water quality in ground waters that supply public water supply wells and wellfields. The program is mandated by the 1986 amendments to the federal Safe Drinking Water Act, Title II, Section 205, Subsection 1428.

(29) “Well log” means a drilling record that describes the subsurface formations that have been drilled through and gives details of well completion as required by IC 25-39-4 and 310 IAC 16-2-6.

(Water Pollution Control Board; 327 IAC 8-4.1-1; filed Feb 28, 1997, 4:18 p.m.: 20 IR 1723)

SECTION 6. 327 IAC 8-10-1, AS AMENDED AT 22 IR 2515, SECTION 22, IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

(1) “Air gap” means an unobstructed vertical distance through atmosphere between the discharge end of a pipeline supplied from a public water supply; and the overflow rim of the receiving portion of the customer water system.

(2) “Backflow” means the flow of water or contaminants into the public water supply distribution system from a source other than the public water supply.

(3) “Booster pump” means a pump installed on a pipeline to increase water pressure or flow.

- (4) “Commissioner” means the commissioner of the Indiana department of environmental management, or the commissioner’s authorized representative.
- (5) “Cross connection” means any physical arrangement, including cross connection control devices not in working order, whereby a public water supply distribution system is directly connected, either continuously or intermittently, with any secondary source of supply, sewer, drain, conduit, pool, piping, storage reservoir, plumbing fixture, or other device which contains, or may contain, and is capable of imparting to the public water supply, contaminants, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality.
- (6) “Cross connection control device” means any device or assembly, approved by the commissioner for construction on or installation in water supply piping, which is capable of preventing contaminants from entering the public water supply distribution system.
- (7) “Cross connection control device inspector” means a person who has:
- (A) successfully completed training in testing and inspection of cross connection control devices from a training provider approved by the commissioner; ~~has~~
 - (B) received a registration number from the commissioner; ~~and who has~~
 - (C) not been notified by the commissioner that the registration number has been revoked in accordance with section 11(b) of this rule.
- (8) “Cross connection hazard” means any customer facility which, because of the nature and extent of activities on the premises or the materials used in connection with the activities or stored on the premises, would present an immediate or potential danger or health hazard to customers of the public water supply should backflow occur.
- (9) “Customer” means any person who receives water from a public water supply.
- (10) “Customer service line” means the pipeline from the public water supply to the:
- (A) first tap, fixture, receptacle, or other point of customer water use; ~~or to the~~
 - (B) first secondary source of supply; or pipeline branch in a building.
- (11) “Customer water system” means all piping, fixtures, and appurtenances, including secondary sources of supply, used by a customer to convey water on his premises.
- (12) “Double check valve assembly” means a device or assembly composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting check valves, with four (4) test cocks, one (1) upstream of the four (4) valves and one (1) between each of the four (4) check and shut-off valves.
- (13) “Downstream” means the direction of flow when only the public water supply is supplying water through the customer water system and backflow is not occurring.
- (14) “Pressure vacuum breaker” means a device or assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the downstream side of the check valve for relieving a vacuum or partial vacuum in a pipeline.
- (15) “Public water system” means ~~any wells, reservoirs, lakes, rivers, sources of supply, pumps, mains, pipes, facilities, and structures through which water is obtained, treated as may be required, and supplied through a water distribution system to a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly~~

serves at least twenty-five (25) persons per day or fifteen (15) service connections for drinking, domestic, or other purposes, including state-owned facilities. individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

(16) “Reduced pressure principle backflow preventer” means a device composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting pressure reducing check valves that, in turn, surround an automatic pressure differential relief valve, and four (4) test cocks, one (1) upstream of the five (5) valves and one (1) between each of the four (4) check and shut-off valves. The check valves effectively divide the structure into three (3) chambers; pressure is reduced in each downstream chamber allowing the pressure differential relief valve to vent the center chamber to atmosphere should either or both check valves malfunction.

(17) “Registration number” means a unique number assigned to a person by the commissioner demonstrating that the person has fulfilled the education and examination requirements as described in section 11 of this rule and is recognized by the state as a cross connection control device inspector.

(18) “Secondary source of supply” means any well, spring, cistern, lake, stream, or other water source, intake structure, pumps, piping, treatment units, tanks, and appurtenances used, either continuously or intermittently, to supply water other than from the public water supply to the customer, including tanks used to store water to be used only for fire fighting, even though the water contained therein is supplied from the public water supply.

(19) “Supplier of water” means any person who owns or operates a public water supply.

(20) “Training provider” means an organization that conducts or presents a cross connection control device inspector course approved by the commissioner in conformance with section 12 of this rule.

(21) “Upstream” means the direction of flow opposite to downstream.

(Water Pollution Control Board; 327 IAC 8-10-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 714; filed Mar 31, 1999, 1:50 p.m.: 22 IR 2515; errata filed Aug 30, 1999, 12:06 p.m.: 23 IR 25)